REMARKS

The acceptance by the Examiner of the drawings filed on March 27, 2001, is noted with appreciation.

Claims 1 and 2 to 16 now appear in the application. Independent claims 1, 6, 11, 12, and 13 have been amended to more particularly defined the invention. Since the amendment to claim 1 included the limitation of claim 2, claim 2 has been canceled. Claim 10 has been amended to correct a minor grammatical error. New claims 14, 15 and 16 have been added. New claim 14 is dependent on claim 6, while new claims 15 and 16 are dependent on claim11.

The withdrawal of the rejection of claims 12 and 13 under 35 U.S.C. §101 is noted with appreciation. It is assumed that the prior rejection of claims 1 to 13 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,343,275 to Wong in view of U.S. Patent No. 5,799,285 to Klingman is also withdrawn since this rejection has not been repeated by the Examiner.

Claims 1 to 13 were rejected under 35 U.S.C. §102(e) as being anticipated bu U.S. Patent Application Publication US 2003/0101133 A1 of DeFrancesco, Jr. et al. As the claims are presently amended, this rejection is respectfully traversed.

The disclosed and claimed invention is directed to a method for allowing flexible creation and alteration of business processes within a commerce system by using state machines to describe the actions that can be taken by particular roles at particular points in a process. The state machines are used by a commerce system to enforce validity of user actions, to track the execution of actions within an instance of the business process, to provide the user interface with a list of actions available to a user working on an instance of the business process, to provide coordination between state machines, and to allow different organizations to have varied business processes.

The claimed invention provides a system and method for representing a business process within a computing system, comprising the steps of defining the business process using a state-machine based representation where transitions of the state machine represent roles and actions, and states of the state machine represent stages in the business process where the commerce system is waiting for

an event to occur; and identifying the actions that participants with particular roles can perform at particular stages of the business process by corresponding state in the state machine and out-going transitions from that state.

The claimed invention further provides a system and method for executing a business process represented as a state machine running on a computing system, where transitions of the state machine represent roles of participants in the business process and actions that can be taken as part of the business process, and states of the state machine represent stages in the business process where the business process is waiting for an event to occur, the method comprising receiving from a user a command representing a desired action to be performed as part of the business process; checking the role of the user within the business process and a context in which the command occurs; and if the command is allowable by a user with the role within the context, executing the command.

The Examiner begins his rejection by citing paragraph [0110] of DeFrancesco, Jr. et al., the last sentence of which states the following:

> "Implementation of the hardware state machine so as to perform the functions described herein will be apparent to persons skilled in the relevant art(s)."

This is the only mention of a state machine in the reference. The Examiner apparently takes this statement to mean that implementing the claimed invention in a state machine is disclosed by DeFrancesco, Jr. et al. This, of course, is not true. First, DeFrancesco, Jr. et al. does not disclose the claimed invention and, second, the statement in paragraph [0110] can only be taken as a suggestion for an alternative implementation to what DeFrancesco, Jr. et al. disclose.

What DeFrancesco, Jr. et al. disclose is a workflow management system for an automated credit application processing system. This workflow management system automatically coordinates the workflow among various workgroups and entities involved in the credit application process. The steps and rule tests that define an organization's workflow are customized according to the workflow requirements and process steps for each organization. The Examiner particularly relies on paragraphs [0059] and [0092], reproduced below:

> "[0059] In a preferred embodiment, three types of steps 418 can be defined for a workflow 404 as indicated by block 414. The types of steps are normal steps, exception steps, and automatic steps. Steps can also be categorized as manual steps, in which case, user action is required to complete the step, in addition to any associated tests. Generally, a user completes a checklist to indicate that a manual step is complete. Normal steps are individual action items that must occur to a credit application before it is considered complete. Exception steps are used to manage any exceptions encountered in the normal processing of credit applications. Exception steps are typically configured to follow the actual step that causes the exception. Automatic steps are steps that cause the automated credit application system to automatically run a function when the step becomes the next step in an application's workflow."
>
> "[0092] If the process step is of the type exception 414, the completion and skip tests 422 are the same. Accordingly, the rules 412 associated with an exception step are both the skip and completion rules. Thus, for exception steps, if at least one of the rules fail, an exception is indicated and the status 416 for the step is incomplete. This will prompt attention from a user, that action is required to complete the process step. Once the user performs the required action, these tests will be executed again. If at that time, all of the tests pass, the step will be tagged with a complete status. If all of the tests for an exception step pass the first time through, there is no exception and the rule is skipped. The status 416 for a skipped exception rule is non-applicable (N/A)."

A fair reading of this two citations will demonstrate that the claimed invention is not anticipated or, for that matter, made obvious by DeFrancesco, Jr. et al. Whatever can be said of the DeFrancesco, Jr. et al. automated credit application processing system, it is not what Applicants are claiming, and implementing the DeFrancesco, Jr. et al. automated credit application processing system with a state machine would not result in Applicants' claimed invention.

Claim 1, as amended, recites a method for representing a business process within a computing system which comprises the steps of:

> "generating computer code of a state machine representing a business process to be implemented;
>
> "providing a graphical user interface (GUI) used to view and edit a graphical representation of the state machine representing the business process, wherein business processes can be created and modified by changing, adding, and/or removing

states and transitions from the state machine representation of the business processes using the GUI and once the graphical representation is modified, a newly depicted state machine code representation is generated by computer software;

"identifying the actions that participants with particular roles can perform at particular stages of the business process by corresponding state in the state machine and out-going transitions from that state; and

"storing the state machine representation of the process, including actions that participants with particular roles can perform at particular stages of the business process by corresponding state in the state machine and out-going transitions from that state."

Thus, claim 1 is directed to the process of defining a business process as a state machine. Nothing like this process is remotely suggested, much less disclosed, by DeFrancesco, Jr. et al. Independent claim 12 is of similar scope to claim 1.

Claim 6, as amended, recites a method for executing a business process represented as a state machine running on a computing system, where transitions of the state machine represent roles of participants in the business process and actions that can be taken as part of the business process, and states of the state machine represent stages in the business process where the business process is waiting for an event to occur. The recited method comprises the steps of:

"retrieving a context of a invocation of an action including retrieval and marshaling of incoming parameters and deriving of user and role information;

"determining by a commerce flow engine which state machine corresponds to a requested commerce function based on the action and its context;

"determining by the commerce flow engine whether the action is creating a new instance or working on an existing instance, and if a new instance, once the new instance is created, setting to a start state used by its underlying state machine;

"after creating or retrieving the instance, determining by the

commerce flow engine whether the action is valid based on a role of the requester and there is a transition in the state machine from the instance's current state with the requested action;

"determining by the commerce flow engine a state to which the transition corresponding to the action would move the instance in and storing this state as a pending state;

"executing by the commerce execution engine a command corresponding to the requested action; and

"storing the pending state that had been stored as a current state with the pending state being cleared."

Thus, claim 6 is directed to the process of executing a business process defined as a state machine as generally illustrated in Figures 8A and 8B. Nothing like this process is remotely suggested, much less disclosed, by DeFrancesco, Jr. et al. Independent claim 13 is of similar scope to claim 6.

Independent claim 11 is directed to a system for executing a business process represented as a state machine running on a computing system, where transitions of the state machine represent roles of participants in the business process and actions that can be taken as part of the business process, and states of the state machine represent stages in the business process where the business process is waiting for an event to occur. The claimed system comprises:

"a computer code representation of a state machine representing a business process to be implemented;

"a graphical user interface (GUI) used to view and edit a graphical representation of the state machine representing the business process, wherein business processes can be created and modified by changing, adding, and/or removing states and transitions from the state machine representation of the business processes using the GUI and once the graphical representation is modified, a newly depicted state machine code representation is generated by computer software;

"a commerce flow engine which stores and executes the state machine representation of the process, including management

of process user inputs, wherein when newly created or modified process is compiled, a resulting state machine is loaded for storage in state machine storage and wherein when a user works on a business process, a state machine is retrieved from said state machine storage, and

"a client on which end users may interact with the system, actions requested by end users being passed to the commerce flow engine which processes client inputs and provides output to the client."

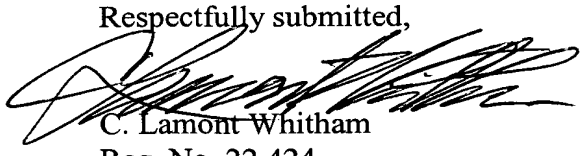
The claimed system is generally illustrated in Figure 4. No such system is remotely hinted at by DeFrancesco, Jr. et al.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1 and 3 to 16 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-0510.

Respectfully submitted,



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